

Date: 01/09/2026

DO NOT SCALE THIS DRAWING
IF IN DOUBT - ASK!

REVISIONS

No	Description	Date	By
A	30% LW SUBMISSION	28.11.2025	RP
B	HDD UPDATE	12.03.2026	AL
C	50% DESIGN SUBMISSION	05.05.2026	AL
D	LW SUBMISSION	29.06.2026	AL
E	WWW SUBMISSION SET	28.07.2026	AL



Client



Project

RIVERMONT
SP55
SEWER RISING MAIN &
GRAVITY SEWER



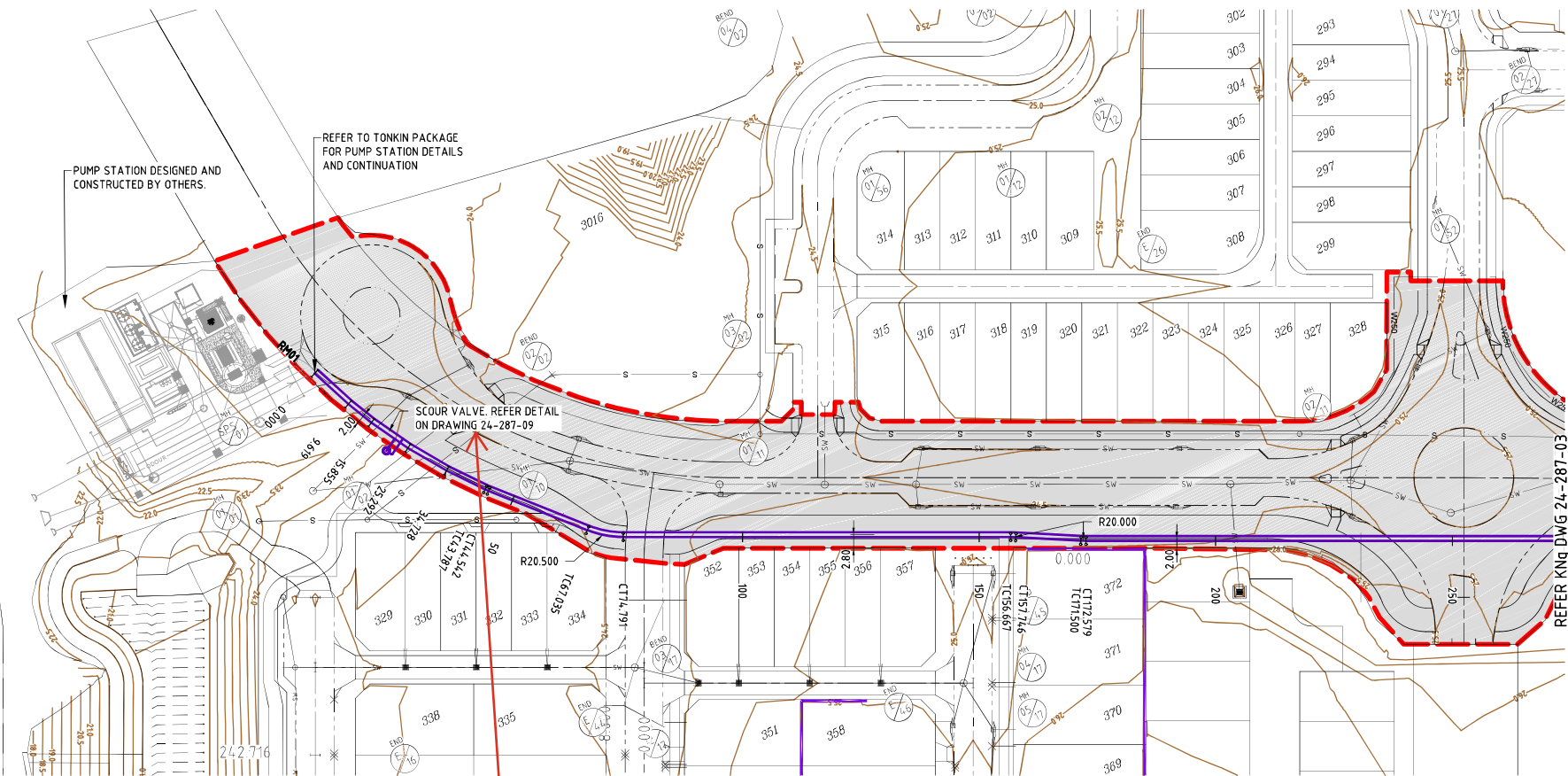
L1, 62 Astor Terrace, Spring Hill, QLD 4000
www.kngroup.com.au | 07 3017 1900

Approved Director - RPEQ 17544

Digitally signed by
Mark Shaw RPEQ
17544
Date: 2026.07.28
17:49:19 +1000

Drawing Title:
**SEWER RISING MAIN
LAYOUT PLAN
SHEET 1**

Drawn	Designed	Checked	Date
RP	AL	MAS	SEP '25
Scale	Sheet	Revision	
AS SHOWN	02 of 11		
Drawing No	Revision		
A1	24-287-02	E	



PLANS AND DOCUMENTS
referred to in the PDA
DEVELOPMENT APPROVAL

Approval no: DEV-2026-WAR-5170

Date: 01/09/2026



TRENCHLESS SECTION

REFER Kng DWG 24-287-04

CONNECT TO GRAVITY
INFRASTRUCTURE.
EXIL: 23.235

GAS AIR VALVE ARRANGEMENT
REFER DETAIL ON DRAWING 24-287-11

DN375 uPVC SN8 VENT
PIPE FROM RISING MAIN
DISCHARGE MANHOLE TO
ODOUR CONTROL UNIT

ODOUR CONTROL FACILITY.
REFER DETAIL ON
DRAWING 24-287-14

ACCESS DRIVEWAY AND
TURNAROUND CONSTRUCTED
AS PART OF ADJACENT ROAD

Drawings to be updated to
1. provide live connection
details to Gravity DN160
sewer.

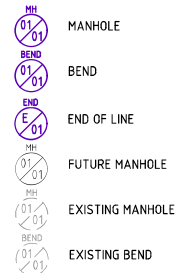
2. include the live connect to
OCU and the extra MH.

3. correctly indicate scour valve
and air valve location.

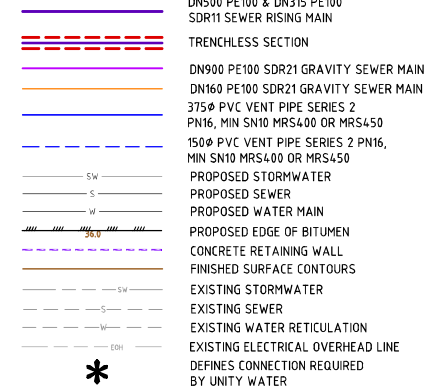
Note added by Unitywater
26-08-2026

LAYOUT PLAN
SCALE 1:500

SEWER MANHOLE LEGEND



LEGEND



SCALE 1:500 (A1 UNREDUCED)

AMENDED IN RED

By: Mahima Reshamwala

Date: 01 September 2026



FIRE ANT TREATMENT ZONE
HIGH RISK FIRE ANT RESTRICTED AREA (RED ZONE).
MOVEMENT OF RESTRICTED ITEMS SHALL BE IN
ACCORDANCE WITH DEPARTMENT OF AGRICULTURE,
FISHERIES AND FORESTRY REQUIREMENTS. REFER TO
www.daff.qld.gov.au



PROPOSED WORKS ARE NEAR EXISTING SERVICES. CONTRACTOR TO COMPLETE DBYD AND
LOCATE ALL EXISTING SERVICES PRIOR TO COMMENCING CONSTRUCTION.
POST SERVICE LOCATION, CONTRACTOR TO SUPPLY SURVEY INFORMATION TO
SUPERINTENDENT'S REPRESENTATIVE PRIOR TO THE COMMENCEMENT OF WORK.

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Drawing Title:
SEWER RISING MAIN
LAYOUT PLAN
SHEET 2

Drawn	Designed	Checked	Date
RP	AL	MAS	SEP '25
Scale	Sheet	Revision	
AS SHOWN	03 of 11		

Drawing No	Revision
24-287-03	E

Unitywater Application No.	Unitywater Drawing No.	Sheet
-	SPS-WTG101-C-DR-8303	A1

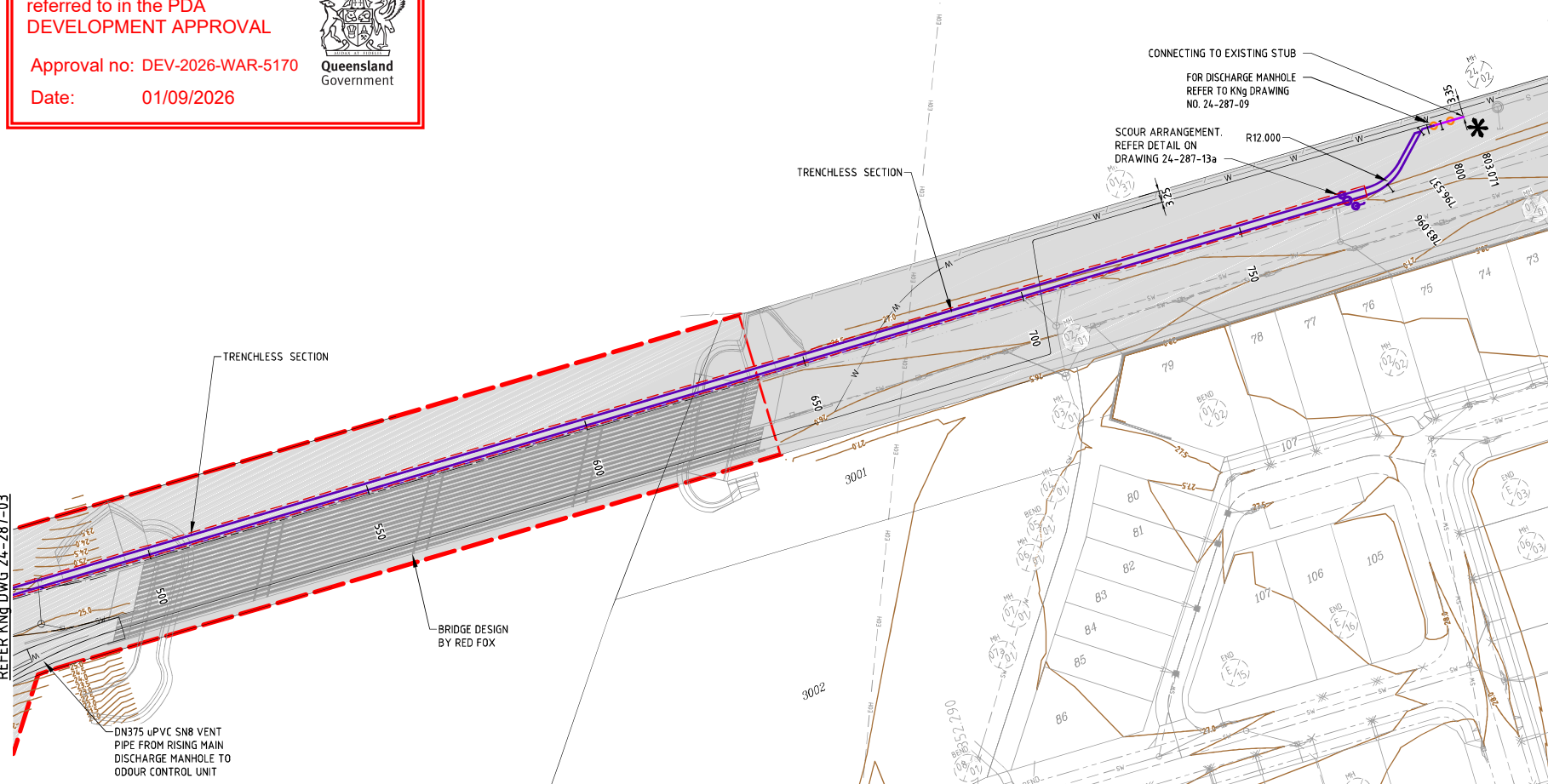
PLANS AND DOCUMENTS
referred to in the PDA
DEVELOPMENT APPROVAL

Approval no: DEV-2026-WAR-5170

Date: 01/09/2026



REFER KING DWG 24-287-03



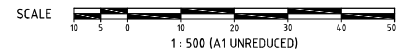
LAYOUT PLAN
SCALE 1:500

SEWER MANHOLE LEGEND

- MANHOLE
- BEND
- END OF LINE
- FUTURE MANHOLE
- EXISTING MANHOLE
- EXISTING BEND

LEGEND

- DN500 PE100 & DN315 PE100 SDR11 SEWER RISING MAIN
- TRENCHLESS SECTION
- DN900 PE100 SDR21 GRAVITY SEWER MAIN
- DN160 PE100 SDR21 GRAVITY SEWER MAIN
- 375Ø PVC VENT PIPE SERIES 2
- PN16, MIN SN10 MRS400 OR MRS450
- 150Ø PVC VENT PIPE SERIES 2 PN16, MIN SN10 MRS400 OR MRS450
- PROPOSED STORMWATER
- PROPOSED SEWER
- PROPOSED WATER MAIN
- PROPOSED EDGE OF BITUMEN
- CONCRETE RETAINING WALL
- FINISHED SURFACE CONTOURS
- EXISTING STORMWATER
- EXISTING SEWER
- EXISTING WATER RETICULATION
- EXISTING ELECTRICAL OVERHEAD LINE
- DEFINES CONNECTION REQUIRED BY UNITY WATER



PROPOSED WORKS ARE NEAR EXISTING SERVICES. CONTRACTOR TO COMPLETE DBYD AND LOCATE ALL EXISTING SERVICES PRIOR TO COMMENCING CONSTRUCTION. POST SERVICE LOCATION, CONTRACTOR TO SUPPLY SURVEY INFORMATION TO SUPERINTENDENT'S REPRESENTATIVE PRIOR TO THE COMMENCEMENT OF WORK.

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Mark Shaw RPEQ
17544
Date: 2026.07.28
17:49:26 +1000

Drawing Title:
SEWER RISING MAIN
LAYOUT PLAN
SHEET 3

Drawn RP	Designed AL	Checked MAS	Date SEP '25
Scale AS SHOWN	Drawing No A1	Sheet 04 of 11	Revision E

Unitywater Application No. -	Unitywater Drawing No. SPS-WTG101-C-DR-8304	A1	24-287-04	E
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REVISIONS

[illegible]

Stockland

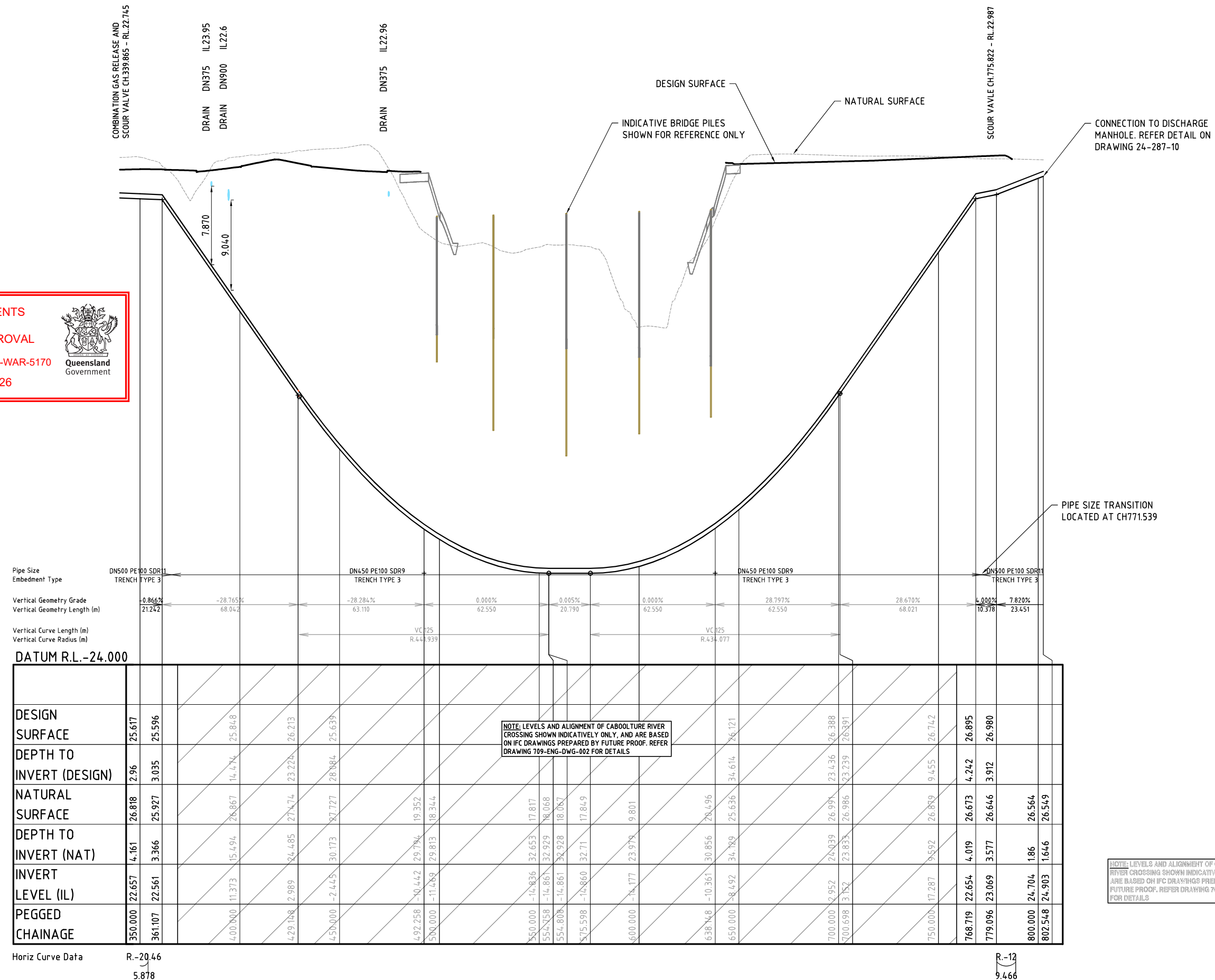
RIVERMONT
SPS5
SEWER RISING MAIN &
GRAVITY SEWER

L1, 62 Astor Terrace, Spring Hill, QLD 4000
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Drawing Title

SEWER RISING MAIN
LONGITUDINAL SECTIONS
SHEET 2

Drawn RP	Designed AL	Checked MAS	Date SEP' 25
Scale AS SHOWN			Sheet 07 of 11
A1	Drawing No 24-287- 06		Revision E



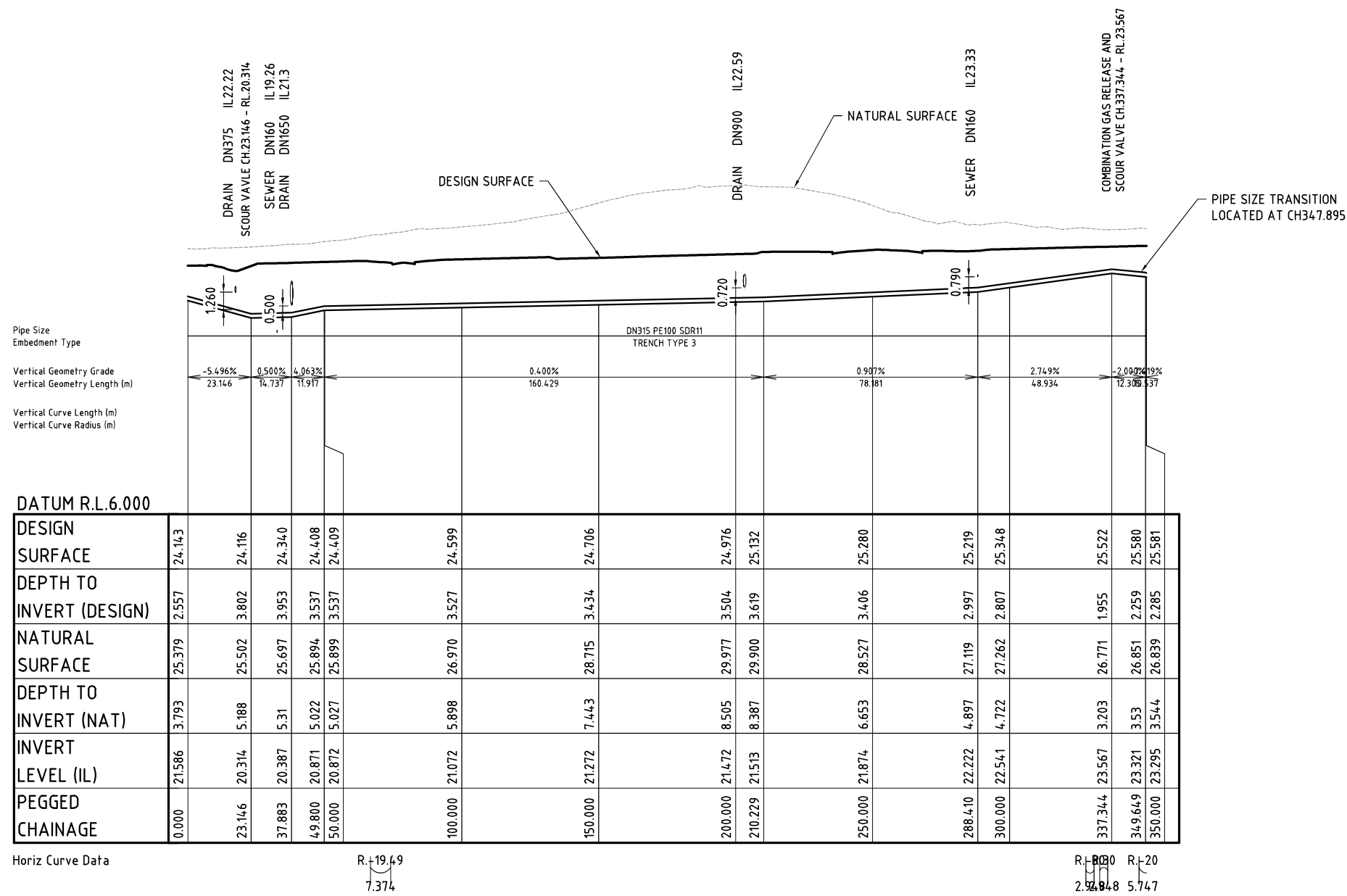
Horiz Curve Data R.-20.46
5.878

LONGITUDINAL SECTION - RM01 - DN500 & DN450 RISING MAIN
SCALE - 1:1000 (H)
1:200 (V)

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Queensland
Government



Horiz Curve Data

LONGITUDINAL SECTION - RM02 - DN315 AND DN280 RISING MAIN

SCALE - 1:1000 (H)
1:200 (V)

REVISIONS

[illegible]

Stockland

RIVERMONT
SPS5
SEWER RISING MAIN &
GRAVITY SEWER

Drawing Title

SEWER RISING MAIN
LONGITUDINAL SECTIONS
SHEET 4

Unitywater Application No.	Unitywater Drawing No.
-	SPS-WTG101-C-DR-8306B

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61. READ THESE DRAWINGS IN CONJUNCTION WITH OTHER ENGINEERING DRAWINGS, SPECIFICATIONS AND ANY OTHER WRITTEN INSTRUCTION THAT MAY BE ISSUED. THE STANDARD NOTES SHALL APPLY UNLESS OTHERWISE VARIED BY THE DRAWINGS OR SPECIFICATIONS.
62. WORKS SHALL BE EXECUTED IN ACCORDANCE WITH THE SOG SEWAGE PRESSURE CODE OF AUSTRALIA.
63. THE CONTRACTOR SHALL VERIFY ALL SETTING OUT DIMENSIONS SHOWN ON THE DRAWINGS BEFORE COMMENCING CONSTRUCTION.
64. NOMINATION OF PROPRIETARY ITEMS DOES NOT INDICATE AN EXCLUSIVE PREFERENCE BUT INDICATES THE REQUIRED PROPERTIES OF THE ITEM. SIMILAR ALTERNATIVES HAVING THE REQUIRED PROPERTIES MAY BE OFFERED AS AN ALTERNATIVE.
65. ALL WORK SHALL COMPLY WITH THE REQUIREMENTS OF THE QUEENSLAND WORK HEALTH AND SAFETY ACT.
66. SUPPORT ALL TRENCHES IN ACCORDANCE WITH THE REQUIREMENTS OF THE QUEENSLAND WORK HEALTH AND SAFETY ACT. ALL TRENCHES OVER 15m DEPTH SHALL BE SUPPORTED USING A CERTIFIED SCAFFOLD OR A COMPETENT PERSON WITH THE MEANING OF THE ACT.
67. UNLESS NOTED OTHERWISE, RESTORE ALL DISTURBED SURFACES TO MATCH PRE-EXISTING SURFACES. REMOVE AND REINSTATE ALL OBJECTS ALONG THE LINE OF CONSTRUCTION SUCH AS FENCES, SIGNS ETC.
68. THE REMOVAL OF ASBESTOS PIPE SHALL BE UNDERTAKEN IN ACCORDANCE WITH THE CODE OF PRACTICE FOR SAFE REMOVAL OF ASBESTOS (INOHSC - 2002 (2005)).
69. ALL WORKMANSHIP AND MATERIAL SHALL BE IN ACCORDANCE WITH ALL RELEVANT AUSTRALIAN STANDARDS, STATE GOVERNMENT AND COMMONWEALTH LEGISLATIONS, LOCAL GOVERNMENT REGULATIONS AND PROJECT SPECIFICATIONS.
70. MAINTAIN STRUCTURES AND EXISTING SERVICES IN A STABLE CONDITION DURING CONSTRUCTION. THE CONTRACTOR SHALL PROTECT ALL PIPES AND PITS FROM FLOATION. NO PART SHALL BE OVERSTRESSED AND TEMPORARY BRACING SHALL BE PROVIDED AS REQUIRED TO KEEP THE WORKS AND EXCAVATIONS STABLE AT ALL TIMES.

- E1. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE DESIGNED BY OPSEQ QUALIFIED PERSON IN ACCORDANCE WITH DEPARTMENT OF TRANSPORT AND MAIN ROADS POLICIES.
- E2. TOPSOIL ONSITE SHALL BE RETAINED AND REUSED WHEREVER POSSIBLE, AFTER APPROPRIATE TESTING (AND POSSIBLE LINE TREATMENT IF AFFECTED BY ASS). ANY DISTURBANCE OF SOILS WITHIN POTENTIAL ACID SULFATE SOIL AREAS SHALL BE MANAGED IN ACCORDANCE WITH THE ACID SULFATE SOIL MANAGEMENT PLAN.
- E3. ALL AUTHORITIES LICENCES AND PERMITS MUST BE ACQUIRED BY THE CONTRACTOR PRIOR TO CONSTRUCTION OF ANY EROSION AND SEDIMENT CONTROL ACTIVITIES. PRIOR TO CLEARING, THE CONSTRUCTION ENVIRONMENTAL COORDINATOR SHALL BE CONSULTED TO ENSURE ALL APPROVALS AND AUTHORISATIONS ARE IN PLACE.
- E4. CLEARING IS TO BE MINIMISED WHERE POSSIBLE AND AS DIRECTED BY THE ENVIRONMENTAL COORDINATOR. NO CLEARING IS TO OCCUR WITHIN IDENTIFIED EXCLUSION ZONE AREAS. THE ENVIRONMENTAL COORDINATOR MUST BE CONTACTED PRIOR TO CLEARING OF CRITICAL VEGETATION AREAS AND MINIMAL IMPACT AREAS. CRITICAL VEGETATION AREAS ARE IDENTIFIED AS CRITICAL KOALA HABITAT AREAS (HIGH AND MEDIUM VALUE) WHICH ARE PROTECTED UNDER THE EPBC ACT.

- ES1. MINIMUM CLEARANCE TO EXISTING SERVICES TO BE AS PER SEQ WS&S D&C CODE UNLESS OTHERWISE SHOWN.
- ES2. NOTWITHSTANDING THAT THE PRESENT AND/OR PROPOSED POSITION OF UNDERGROUND SERVICES MAY BE INDICATED ON DRAWINGS, THEIR POSITION AND DEPTH IS APPROXIMATE ONLY. PRIOR TO ANY EXCAVATION THE CONTRACTOR SHALL CONTACT ALL RELEVANT AUTHORITIES AND SHALL POT-HOLE ALL SERVICES TO OBTAIN DETAILED LOCATIONS. THE CONTRACTOR SHALL NOTIFY THE SUPERINTENDENT OF ANY CONFLICTS BETWEEN THE PROPOSED MAIN AND EXISTING SERVICES. THE SUPERINTENDENT SHALL ADVISE OF DETAILS OF ANY REQUIRED CHANGES TO ALIGNMENT OR LEVEL, OR ARRANGE FOR CHANGES TO SERVICES.
- ES3. TAKE APPROPRIATE ACTION TO PROTECT AND MAINTAIN UTILITY/WATER'S AND OTHER AUTHORITIES' EXISTING SERVICES DURING CONSTRUCTION. THE CONTRACTOR SHALL CHECK THE LOCATION OF ALL EXISTING SERVICES. SHOULD ANY DAMAGE BE DONE TO ANY UNDERGROUND OR OVERHEAD SERVICES, THE CONTRACTOR SHALL, WITHOUT DELAY, ARRANGE WITH APPROPRIATE AUTHORITY TO MAKE GOOD AND REPAIR SAME, AND THE COST OF SUCH REPAIRS SHALL BE BOURNE BY THE CONTRACTOR, WHERE INFORMATION CONCERNING ANY EXISTING SERVICES IS GIVEN ON THE DRAWINGS, IT IS GIVEN IN GOOD FAITH, BUT ONLY IMPLIED AS TO ITS ACCURACY.
- ES4. ALL TEMPORARY WORKS AND SIGNAGE SHALL COMPLY WITH THE QUEENSLAND MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND AS 1742.

- P1. WHERE CONNECTING TO EXISTING PIPEWORK, THE LEVEL AND DIAMETER OF THE EXISTING PIPEWORK SHALL BE CONFIRMED BY THE CONTRACTOR PRIOR TO ORDERING FITTINGS AND COMMENCING CONNECTION WORKS.
- P2. ALL FLANGES SHALL BE IN ACCORDANCE WITH AS 4087, CLASS 16 FOR STEEL AND DUCTILE IRON.
- P3. ALL FLANGE BOLT HOLE ORIENTATIONS SHALL BE OFF-CENTRE.
- P4. ALL FLANGE BOLT SETS SHALL BE GRADE 316 STAINLESS STEEL. REFER AS 4087, TABLE C1 FOR CLASS.
- P5. FLANGE GASKET MATERIAL AND THICKNESS SHALL BE IN ACCORDANCE WITH AS 4087, TABLE C1.
- P6. ALL DUCTILE IRON PIPE SHALL BE CEMENT LINED, RUBBER JOINT, PN05 MANUFACTURED TO AS 2280.
- P7. ALL DUCTILE IRON FLANGES SHALL BE DRILLED TO AS 4087 FIGURE B6.
- P8. ALL DUCTILE IRON FITTINGS TO BE PN16 AND SHALL BE COATED INTERNALLY & EXTERNALLY WITH FUSION BONDED NYLON (FBN) OR FUSION BONDED EPOXY (FBE).
- P9. ALL BURIED DUCTILE IRON PIPEWORK INCLUDING FLANGED JOINTS, FITTINGS AND MECHANICAL COUPLINGS SHALL BE WRAPPED IN POLYETHYLENE SLEEVING IN ACCORDANCE WITH AS 3681.
- P10. ALL PROPRIETARY MATERIALS SHALL BE PLACED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
- P11. ALL VALVES TO BE RESILIENT SEATED.
- P12. CHANGES IN HORIZONTAL AND VERTICAL ALIGNMENT, OTHER THAN BY BENDS, SHALL BE ACHIEVED BY DEFLECTING PIPE JOINTS BY A MAXIMUM OF 2 DEGREES PER PIPE JOINT. WHERE CHANGES IN PIPE GRADES SHOWN ON THE DRAWINGS EXCEED 2 DEGREES, THE DEFLECTION SHALL BE SPREAD BETWEEN ADJACENT JOINTS.
- P13. WHERE NON-METALLIC PIPES ARE USED A DETECTABLE MARKING TAP COMPLYING WITH AS 2648.1 SHALL BE INSTALLED. MARKER TAP SHALL BE COLOURED CREAM FOR SEWAGE APPLICATIONS.
- P14. PIPELINES SHALL NOT BE CONSTRUCTED IN UNCONTROLLED FILL. THE CONTRACTOR SHALL PROVIDE TEST CERTIFICATES TO THE SUPERINTENDENT DEMONSTRATING THAT FILL IS COMPACTED 95% RELATIVE DENSITY TO AS 1289.5.2.1.
- P15. PIPE EMBEDMENT MATERIAL SHALL BE:
 - 5 TO 7mm SINGLE SIZED MATERIAL TO WSA PS-351; OR
 - 10mm SINGLE SIZED RECYCLED AGGREGATE MATERIAL TO WSA PS-366.

1. MINIMUM CLEAR COVER TO MAINS, UNLESS NOTED OTHERWISE, SHALL BE 120mm (MIN) UNDER CARRIAGEWAYS OF MOTORWAYS/FREWAYS.
2. EMBEDEDMENT AND TRENCH FILL SHALL BE INSTALLED AS PER PROJECT DRAWINGS AND SEQ WS&S D&C CODE STANDARD DRAWINGS SEQ-PSS-1000-1.
3. ALL HORIZONTAL BENDS TO HAVE THRUST BLOCKS INSTALLED AS PER SEQ WS&S D&C CODE STANDARD DRAWING SEQ-WAT-1205-1.
4. THRUST RESTRAINTS SHALL BE PROVIDED AT LOCATIONS AS SHOWN ON SITE PLANS AND SHALL BE CONSTRUCTED IN ACCORDANCE WITH SEQ WS&S D&C CODE STANDARD DRAWING SEQ-WAT-1208-1.
5. TOPSOIL AND SUBSOIL SHOULD BE STOCKPILED SEPARATELY.
6. CARE SHOULD BE TAKEN TO PREVENT SEDIMENT FROM ENTERING THE STORMWATER SYSTEM. THIS MAY INVOLVE PLACING APPROPRIATE SEDIMENT CONTROLS AROUND STOCKPILES.
7. NO SOIL MUST BE STOCKPILED WITHIN 5M OF ANY CREEK OR WATER COURSE.
8. WORKS WITHIN ROAD RESERVES SHALL BE UNDERTAKEN IN THE STRICT ACCORDANCE WITH THE REQUIREMENTS OF THE RELEVANT ROAD AUTHORITY.
9. SEQUENTIAL WATER, SCOUR AND AIR VALVE IDENTIFICATION MARKER POSTS AS PER PROJECT DRAWINGS.
10. TRACER WIRE SPECIFICATION, AS REQUIRED BY: > SEQ WATER SUPPLY CODE V13-2019, SS4.16 MARKING TAPE, SS4.16 MAINS; AND > XP788 - SPECIFICATION FOR HORIZONTAL DIRECTIONAL DRILLING REV. S7.6.14. TAPEX TRACER WIRE ONLY IS PRESCRIBED BY SEQ CODE DEC-2020 CIVIL IPAM LIST, ROW 755.

TB1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN AND PLACEMENT OF PIPELINE RESTRAINTS AT ALL LOCATIONS WHERE UNBALANCED THRUST EXIST AND TRANSMIT ALL THRUST LOADS TO THE ADJACENT NATIVE SOIL OR ROCK.

TB2. TEST PRESSURE FOR PRESSURE PIPELINES SHALL BE AS FOLLOWS:
- WATER SUPPLY MAINS ≥ 1200 kPa APPLIED AS CLOSE AS PRACTICABLE TO THE LOWEST POINT OF THE MAIN
- PER SEW WATER SUPPLY CODE SECTIONS 3.5 SYSTEM TEST PRESSURE AND SECTION 19.4 HYDROSTATIC PRESSURE TESTING AND STANDARD DRAWING SEW-WAT-(205-1B)

TB3. NATIVE GROUND CONDITIONS, WITH RESPECT TO THRUST BLOCKS, SHALL BE ASSESSED IN ACCORDANCE WITH SEW WS&S D&C CODE.

TB4. ALL THRUST BLOCKS SHALL BE CONSTRUCTED IN ACCORDANCE WITH SEW WS&S D&C CODE.

TB5. ALL THRUST BLOCKS SHALL BE CAST AGAINST UNDISTURBED GROUND.

TB6. THE SUITABILITY OF ALL THRUST RESTRAINTS SHALL BE CONFIRMED AFTER EXCAVATION AND PRIOR TO THE PLACEMENT OF CONCRETE BY AN RPQ GEOTECHNICAL ENGINEER. THE CONTRACTOR SHALL SUPPLY TO THE SUPERINTENDENT A FORM 16 STRUCTURAL CERTIFICATION FOR EACH THRUST RESTRAINT LOCATION.

TB7. THE USE OF "TYTON-LOK" JOINTS FOR PIPE RESTRAINT IS NOT PERMITTED.

PW1. THE CONTRACTOR SHALL, AT ITS OWN EXPENSE, PROVIDE ALL PLANT, MATERIALS AND LABOUR NECESSARY TO PROTECT THE WORKS FROM DAMAGE BY INCLEMENT WEATHER OR ANY OTHER CAUSES. LOW POINTS OF EXCAVATIONS WHERE WATER MAY COLLECT SHALL BE KEPT THOROUGHLY DRAINED BY MECHANICAL OR GRAVITATIONAL MEANS.

PW2. DRAINS OR WATER COURSES UTILISED FOR THIS PURPOSE SHALL BE CLEANED OUT AND MAINTAINED FREE OF SILT OR OTHER MATERIAL TO THE SATISFACTION OF THE SUPERINTENDENT.

PW3. THE CONTRACTOR SHALL PREVENT, IN SO FAR AS IS REASONABLY POSSIBLE, ANY MATERIAL ENTERING ANY GULLY, MANHOLE OR PIPE, AND SHALL REMOVE FROM THE DRAINAGE SYSTEM, ANY MATERIAL FROM ANY SOURCE WHICH MAY BE DEPOSITED IN THE DRAINAGE SYSTEM BY ANY AGENCY UP TO THE DATE OF PRACTICAL COMPLETION.

PE1 ALL PE PIPES AND FITTINGS SHALL BE MATERIAL GRADE PE100 TO AS4130.
PE2 RISING MAIN SHALL BE TO BE A MINIMUM CLASS PN16. WHERE PIPE CLASSIFICATION IS NOT SPECIFIED, CONSULT WITH DESIGN CONSULTANT.
PE3 PE PIPE COLOUR SHALL BE: CREAM STRIPE
PE4 PE PIPES WITH CRACKS, SCORES OR SCRATCHES DEEPER THAN 10% OF THE WALL THICKNESS SHALL BE REJECTED.

PW1	ALL PE PIPE-TO-PIPE JOINTS SHALL BE FUSION BUTT-WELDED, USE OF ELECTROFUSION WELDING FOR PIPE-TO-PIPE JOINTS IS NOT PERMITTED.
PW2	PE WELDING MUST ONLY BE CARRIED OUT BY CERTIFIED PERSONS;
(A)	IN ACCORDANCE WITH PARTEC REQUIREMENTS AND
(B)	WHO HAS SUCCESSFULLY CARRIED OUT PREVIOUS PE PRESSURE PIPELINE WELDING PROJECTS OF A SIMILAR SIZE.
(C)	EVIDENCE OF CERTIFIED PERSONS PE WELDING EXPERIENCE MUST BE PROVIDED PRIOR TO COMMENCEMENT OF ANY WELDING WORK.
PW3	FUSION BUTT-WELDED JOINTS SHALL BE MADE IN ACCORDANCE WITH WSA 01-2004; AS.2033, AS.2566.2 AND THE PE PIPE MANUFACTURER'S REQUIREMENTS AND RECOMMENDATIONS.
PW4	JOINTS SHALL ONLY BE MADE BETWEEN PIPE MATERIALS OF THE SAME GRADE AS DEFINED IN AS.4130.
PW5	PIPE BUTT-WELDED JOINTS SHALL ACHIEVE AT LEAST 90% OF THE TENSILE STRENGTH OF THE PARENT PIPE. INTERNAL WELD BEADS SHALL NOT BE REMOVED.
PW6	ALL WELDING SHALL BE PERFORMED UNDER CONTROLLED ENVIRONMENTAL CONDITIONS. FIELD WELDING SHALL BE CARRIED OUT IN SHELTERS TO PREVENT DUST AND WATER CONTAMINATION. SHELTERS SHALL REMAIN IN PLACE UNTIL COMPLETION OF THE JOINT COOLING PERIOD. PIPE ENDS SHALL BE BLOCKED OFF TO PREVENT WIND CHILL AND DIRT CONTAMINATION.
PW7	WELDING MACHINES USING HAND WOUND CARRIAGES WITHOUT PRESSURE GAUGES SHALL NOT BE USED AT ALL TIMES THAT WELDING IS IN PROGRESS, THE WELDER SHALL HAVE AVAILABLE A HAND-HELD TEMPERATURE SENSING DEVICE CAPABLE OF CHECKING THE TEMPERATURE OF THE HEATER PLATE AT THE CIRCUMFERENCE OF THE WELD.

Note added by Unitywater
26-08-2026

[illegible]

SS1. THE FOLLOWING CURRENT UNITYWATER SPECIFICATION SHALL APPLY TO THE NEW WORKS:

	QUEENSLAND ACID SULFATE SOIL TECHNICAL MANUAL SOIL MANAGEMENT GUIDELINES V5.1 (2024)
Pr8701	SPECIFICATION FOR ASSET INFORMATION
Pr8871	SPECIFICATION FOR COMMISSIONING OF NETWORK PROJECT ASSETS
Pr9693	SPECIFICATION FOR MECHANICAL INSTALLATIONS
Pr9787	SPECIFICATION FOR MICROTUNNELLING AND PIPE JACKING
Pr9788	SPECIFICATION FOR HORIZONTAL DIRECTION DRILLING
Pr9825	SPECIFICATION FOR SHAFTS
Pr9875	SPECIFICATION FOR NON-PRESSURE PIPELINE CONSTRUCTION
Pr9902	SPECIFICATION FOR CIVIL AND EARTHWORKS
Pr9904	SPECIFICATION FOR PRESSURE PIPELINE CONSTRUCTION

SS2. THE FOLLOWING CURRENT DESIGN, CONSTRUCTION AND MATERIALS SPECIFICATIONS SHALL APPLY TO THE NEW WORKS:

SEQ WATER SUPPLY AND SEWERAGE DESIGN AND CONSTRUCTION CODE ACCEPTED CIVIL INFRASTRUCTURE PRODUCTS AND MATERIALS LIST
SEQ WATER SUPPLY AND SEWERAGE DESIGN AND CONSTRUCTION CODE ACCEPTED MECHANICAL EQUIPMENT LIST
SEQ WATER SUPPLY AND SEWERAGE DESIGN AND CONSTRUCTION CODE
SEQ WATER SUPPLY AND SEWERAGE DESIGN AND CONSTRUCTION CODE ASSET INFORMATION SPECIFICATION
WSAA POLYETHYLENE PIPELINE CODE WSA 01-2004

AC1. THE CONTRACTOR MUST PROVIDE ALL "AS CONSTRUCTED" INFORMATION AS DESCRIBED IN ACCORDANCE WITH SEQ WS&S D&C CODE - ASSET INFORMATION SPECIFICATION.

AC2. ALL DRAWINGS SHALL, AFTER COMPLETION OF CONSTRUCTION BE AMENDED BY THE CONTRACTOR TO SHOW IN DETAIL THE WORK "AS CONSTRUCTED". THE CONTRACTOR SHALL ENSURE THAT ALL "AS CONSTRUCTED" SURVEY WORK INCLUDING PLAN PREPARATION IS COMPLETED BY A LICENSED SURVEYOR. WHERE AN AS-CONSTRUCTED CONDITION REQUIRES A DRAWING TO BE AMENDED THEN THE CONTRACTOR SHALL ENSURE ALL RELATED DRAWINGS INFLUENCED BY THIS AMENDMENT SHALL SIMILARLY BE AMENDED.

AC3. "AS CONSTRUCTED" DRAWINGS ARE TO BE SUBMITTED TO UNITYWATER FOR APPROVAL. THE "AS CONSTRUCTED" DRAWINGS ARE TO BE PREPARED IN ACCORDANCE WITH UNITYWATER'S SPECIFICATION FOR "AS CONSTRUCTED" INFORMATION AND THE "UNITYWATER CAD STANDARD".

AC4. ALL COSTS ASSOCIATED WITH MEETING THE ABOVE REQUIREMENTS IN RELATION TO "AS CONSTRUCTED" DRAWINGS, NOTWITHSTANDING THAT SOME AMENDMENTS MAY HAVE BEEN REQUIRED AS THE RESULT OF THE INSTRUCTIONS ISSUED BY THE ADMINISTRATOR, SHALL BE DEEMED TO BE INCLUDED IN THE LUMP SUM ITEM FOR "AS CONSTRUCTED" SURVEY AND DRAWINGS IN THE BILL OF QUANTITIES.

AC5. SHOULD IT BE FOUND SUBSEQUENT TO COMPLETION THAT THE CONTRACTOR HAS FAILED TO AMEND ALL OR SOME OF THE DRAWINGS AS REQUIRED ABOVE THEN THE ADMINISTRATOR AT HIS DISCRETION MAY PROCEED TO HAVE THE NECESSARY AMENDMENTS CARRIED OUT WITHOUT FURTHER REFERENCE TO THE CONTRACTOR.

AC6. ALL COSTS ASSOCIATED WITH OBTAINING INFORMATION & CARRYING OUT THESE AMENDMENTS WILL BE DEDUCTED FROM ANY MONIES OTHERWISE OWING TO THE CONTRACTOR UNDER THE TERMS OF THIS CONTRACT, PROVIDED THAT THE REASON FOR SUCH AMENDMENT WAS NOT AS A RESULT OF AN INSTRUCTION GIVEN BY THE ADMINISTRATOR ORDERING ADDITIONAL WORKS.

AC7. THE CONTRACTOR MAY CALLED UPON TO FURTHER AMEND THE "AS CONSTRUCTED" DRAWINGS SHOULD IT BE FOUND NECESSARY FOR THE ADMINISTRATOR TO ORDER MODIFICATIONS TO THE WORK. THE CONTRACTOR SHALL BE ENTITLED TO PAYMENT FOR THIS WORK ON A TIME BASIS AT CURRENT CONTRACT DRAFTING RATES AND RULING PLAN PRINTING CHARGES UNLESS THE MODIFICATION WAS NECESSARY BECAUSE OF FAULTY, INCORRECT WORK OR PLANT BELOW SPECIFIED PERFORMANCE ON THE PART OF THE CONTRACTOR IN WHICH CASE NO ADDITIONAL PAYMENT WILL BE MADE.

AC8. DISUSED AND REMOVED INFRASTRUCTURE SHALL BE RECORDED BY THE CONTRACTOR AND SHALL BE SHOWN ON THE "AS CONSTRUCTED" DRAWINGS.

- THE TERM 'PRACTICAL COMPLETION' IS NOT RECOGNISED BY UNITYWATER FOR DEVELOPER DONATED INFRASTRUCTURE AND IS RESERVED AS A CONTRACTUAL TERM FOR USE BETWEEN THE DEVELOPER, CONSULTING ENGINEER, AND PRINCIPAL CONTRACTOR.

SC1. BEFORE WELDING OF STEEL COLLARS OR BUTT WELDING OF STEEL PIPES, REMOVE SINTAKOTE COATING FROM THE STEEL PIPE AND COLLAR FOR AT LEAST 50mm AND UP TO 100mm EACH SIDE OF THE WELD SITE. AFTER WELDING, ANY LOOSE OR UNSOUND COATING, SHARP SURFACE IRREGULARITIES SHALL BE REMOVED. THE EDGES SURROUNDING THE EXPOSED STEEL INCLUDING THE EDGES OF SINTAKOTE SHALL BE BEVELED BY RASPING, SCRAPING OR GRINDING. ANY FACTORY APPLIED RED PRIMER SHALL BE REMOVED FROM THE SINTAKOTED STEEL SURFACE. ALL LOOSE SCALE AND FOREIGN MATTER INCLUDING DIRT, OIL, GREASE AND WATER SHALL ALSO BE REMOVED. ALL EXPOSED STEEL SHALL BE PREPARED TO ACHIEVE A CLASS SA2 SURFACE TO AS 1627.2 BY SOLVENT CLEANING AND WIRE BRUSHING IF SUFFICIENT, OR POWER-TOOL CLEANING IF NECESSARY; OR ABRASIVE BLAST CLEANING IF NECESSARY.

SC2. WHERE WELDS OR WELD COLLAR EDGES ARE NOT BEVELED, A CIRCUMFERENTIAL STRIP OF BUTYL MASTIC SHALL BE PRESSED INTO PLACE AROUND THE WELD TO FILL AND VOID AND PROFILE THE STEP. THE FILLER USED TO PROFILE AND FILL VOIDS SHALL BE AN APPROVED BUTYL MASTIC TAPE SYSTEM CONSISTING OF SELF-AMALGAMATING BUTYL MASTIC TAPE IN COMBINATION WITH BUTYL MASTIC PRIMER AND PVC OVERWRAP TAPE BEFORE PLACING WRAP-AROUND TYPE HEAT SHRINK SLEEVES (EITHER PRE-CUT OR CUT FROM A ROLL) IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. THE SLEEVE SHALL BE WIDE ENOUGH TO EXTEND FOR A MINIMUM OF 100mm OVER SOUND COATING ON EITHER SIDE OF THE AREA TO BE COATED OR OVER ADJOINING SLEEVES, PRIOR TO SHRINKING.

SC3. CLOSURE PATCHES SHALL BE PRE-ATTACHED BY THE MANUFACTURER TO PRE-CUT SLEEVES, OR ATTACHED BY THE CONTRACTOR TO SLEEVES CUT FROM BULK ROLL MATERIAL. IF THE LATTER TYPE IS PROPOSED, THE CLOSURE PATCHES SHALL BE COMPATIBLE WITH THE WRAP-AROUND HEAT SHRINK SLEEVE WIDTH OF EITHER 450mm OR 600mm.

SC4. THE COATING SYSTEM SHALL BE FREE OF FAULTS WHEN TESTED WITH A 5kV HIGH VOLTAGE SPARK TESTER. THE COATING SYSTEM SHALL BE FREE FROM MOISTURE PRIOR TO TESTING.

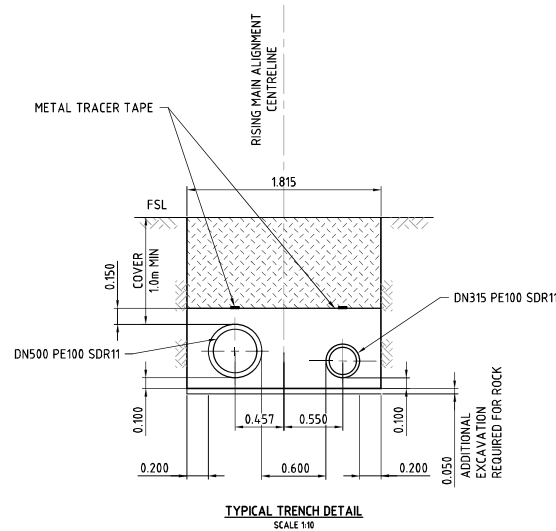
D01. A CONSOLIDATED DEFECTS AND OMISSIONS PUNCHLIST WILL BE GENERATED FOR UNITYWATER AS A RESULT OF A SITE WALKOVER PRIOR TO CONSTRUCTION COMPLETION AND COMMENCEMENT OF COMMISSIONING. THIS PUNCHLIST WILL BE MAINTAINED THROUGHOUT THE COMMISSIONING PROCESS TO KEEP A COMPREHENSIVE LIST OF ALL DEFECTS/OMISSIONS THAT MAY AFFECT COMMISSIONING, OPERATION AND GENERAL ACCEPTANCE BY UNITYWATER.

D02. EACH DEFECT/OMISSION WILL BE RECORDED AND ASSIGNED A CLASSIFICATION AT THE DISCRETION OF UNITYWATER. THE CLASSIFICATION DETERMINES WHEN THE CONTRACTOR SHALL RESOLVE THE DEFECT/OMISSION.

THE TWO CLASSIFICATION CATEGORIES ARE:

- MAJOR DEFECTS - MUST BE RECTIFIED BEFORE ACCEPTANCE ON-MAINTENANCE AND
- MINOR DEFECTS - MUST BE RECTIFIED BEFORE THE END OF THE DEFECTS LIABILITY PERIOD.

W1. ALL WARRANTIES ARE TO BE ISSUED IN THE NAME OF UNITYWATER.
W2. COPIES OF WARRANTIES ARE TO BE IN THE FORM STATED IN THE SPECIFICATION FOR ASSET INFORMATION.



Note added by Unitywater
26-08-2026

[illegible]

Client



Project

RIVERMONT
SPS5
SEWER RISING MAIN &
GRAVITY SEWER



L1, 62 Astor Terrace, Spring Hill, QLD 4000
www.kngroup.com.au | 07 3017 1900

Approved Director - RPEQ 17544
Digitally signed by
Mark Shaw RPEQ
17544
Date: 2026.07.28
47:46:00+10000

Drawing Title: SEWER RISING MAIN
NOTES
SHEET 2

Drawn RP	Designed AL	Checked MAS	Date SEP' 25
Scale AS SHOWN			Sheet 11 of 11

Utilitywater Application No.	Utilitywater Drawing No.	A1	Drawing No	Revision
-	SPS-WTG101-C-DR-8308		24-287-08	E

Approval no: DEV-2026-WAR-5170
Date: 01/09/2026



By: Mahima Reshamwala
Date: 01 September 2026





Drawn RP	Designed AL	Checked MAS	Date SEP' 25
Scale AS SHOWN			Sheet 12 of 11

PLANS AND DOCUMENTS
referred to in the PDA
DEVELOPMENT APPROVAL

Approval no: DEV-2026-WAR-5170

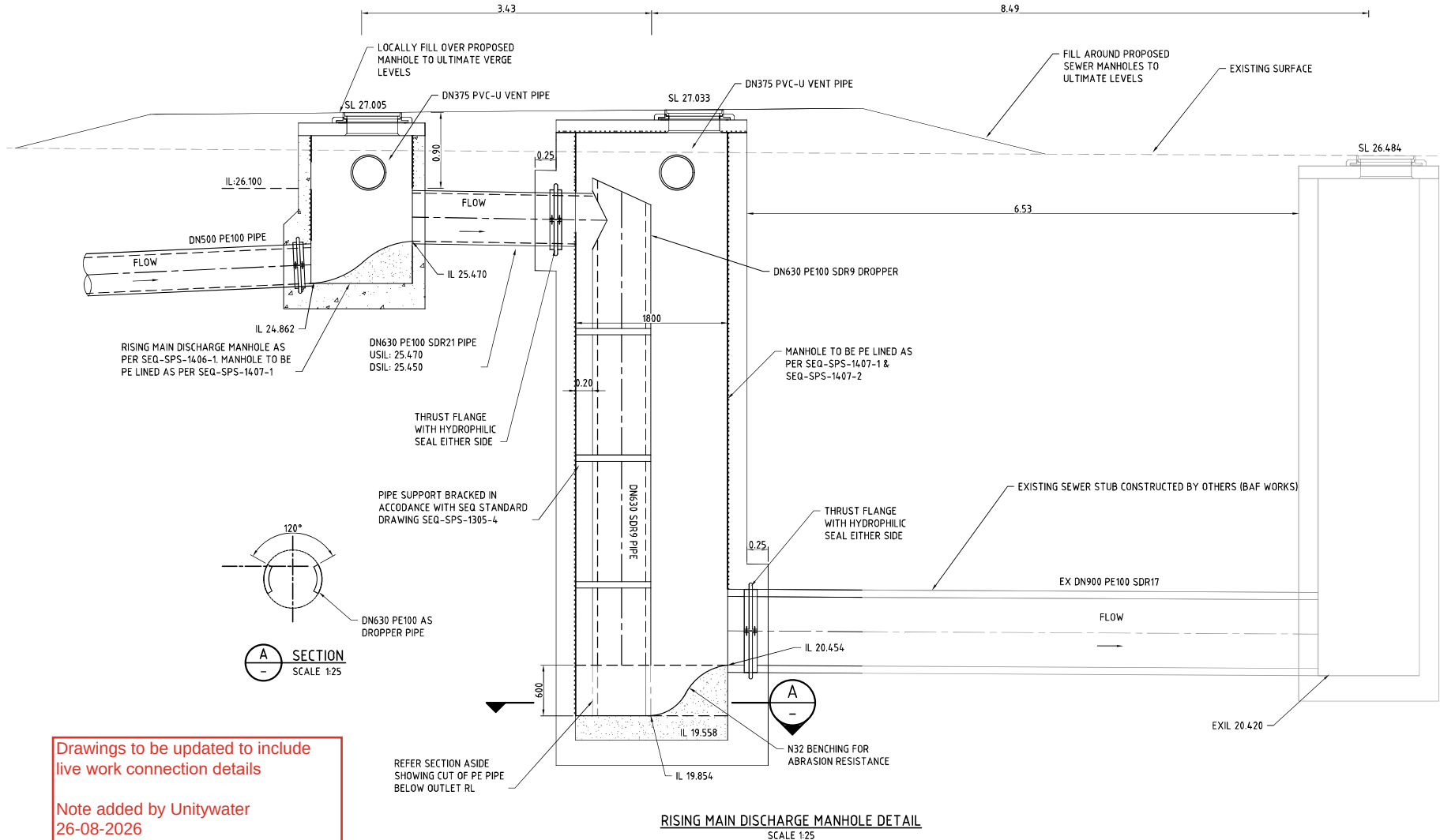
Date: 01/09/2026



AMENDED IN RED

By: Mahima Reshamwala

Date: 01 September 2026



Drawings to be updated to include
live work connection details

Note added by Unitywater
26-08-2026

RISING MAIN DISCHARGE MANHOLE DETAIL
SCALE 1:25

SCALE 1:25 (A1 UNREDUCED)

Unitywater Application No. SPS-WTG101-C-DR-8310

DO NOT SCALE THIS DRAWING
IF IN DOUBT - ASK!

REVISIONS

No	Description	Date	By
A	30% LW SUBMISSION	28.11.2025	RP
B	DISCHARGE MH CONNECTION UPDATE	26.03.2026	AL
C	50% DESIGN SUBMISSION	05.05.2026	AL
D	LW SUBMISSION	29.06.2026	AL
E	WWW SUBMISSION SET	28.07.2026	AL



Client

Stockland

Project

RIVERMONT
SPSS
SEWER RISING MAIN &
GRAVITY SEWER

kn group

L1, 62 Astor Terrace, Spring Hill, QLD 4000
www.knigroup.com.au | 07 3017 1900

Approved Director - RPEQ 17544
Digitally signed by
Mark Shaw RPEQ
17544
Date: 2026.07.29
15:20:57+1000

Drawing Title:
SEWER RISING MAIN
DISCHARGE MANHOLE DETAILS
SHEET 2

Drawn	Designed	Checked	Date
RP	AL	MAS	SEP' 25
Scale	Sheet	Revision	
AS SHOWN	13 of 11	E	

AMENDED IN RED

By: Mahima Reshamwala

Date: 01 September 2026



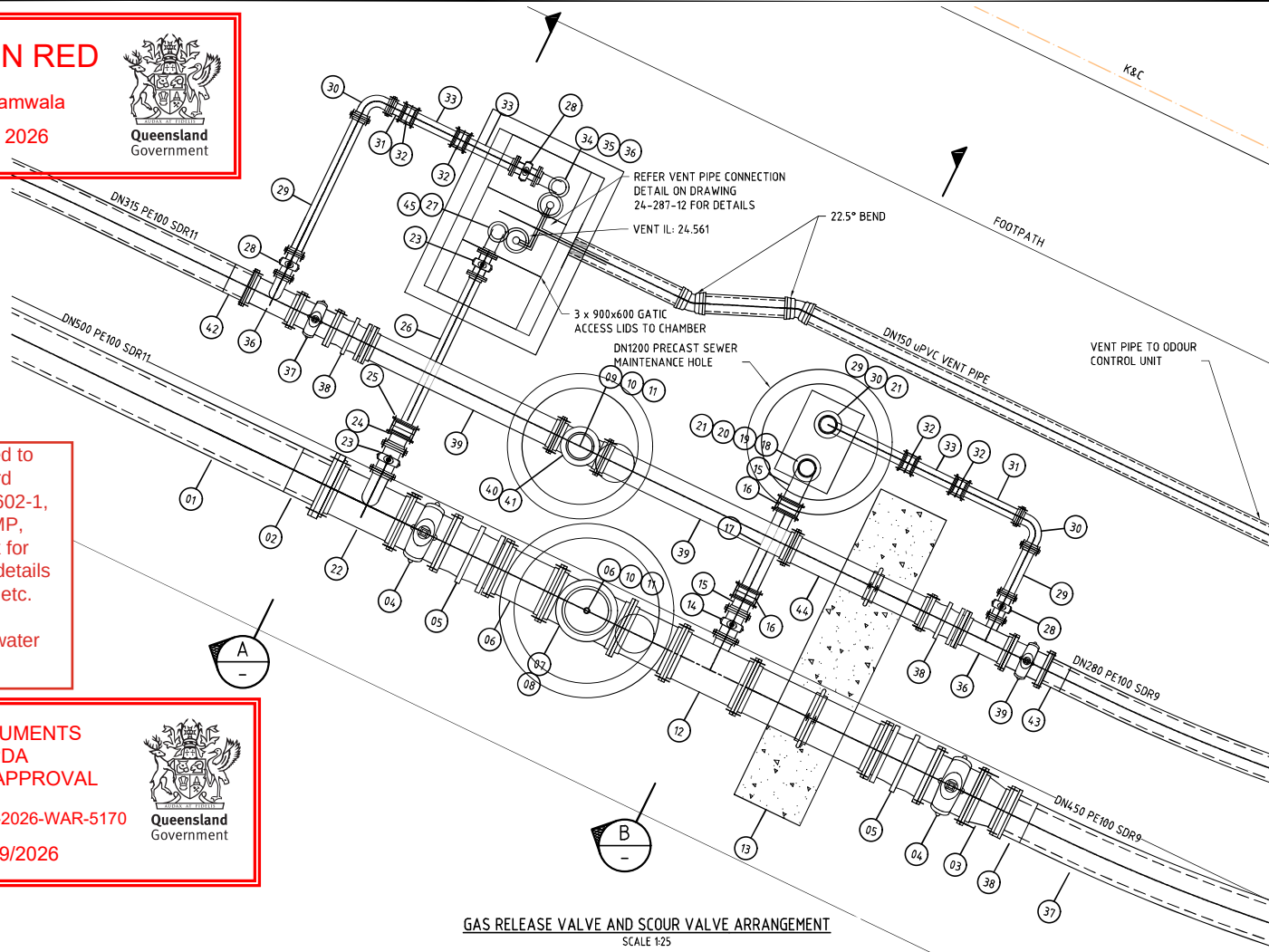
Drawing to be updated to reference the standard drawing SEQ-SPS-1602-1, including adding SUMP, ABFLEX, thrust block for DN315 Rising Main, details of pipe arrangement, etc.

Note added by Unitywater
26-08-2026

PLANS AND DOCUMENTS
referred to in the PDA
DEVELOPMENT APPROVAL

Approval no: DEV-2026-WAR-5170

Date: 01/09/2026



GAS RELEASE VALVE AND SCOUR VALVE ARRANGEMENT
SCALE 1:25

ITEM	FITTING	MATERIAL	ITEM	FITTING	MATERIAL	ITEM	FITTING	MATERIAL
01	DN500 PIPE	PE100 SDR9	19	DN150 FL-FL PIPE	DI PN35	37	DN250 FL-FL VALVE	DI PN35
02	DN500 FULL FACE STUB FLANGE W/ SS BACKING RING	PE100 SDR9	20	DN150 - DN100 FL-FL REDUCER	DI PN35	38	DN250 THRUST DISMANTLING JOINT	DI PN35
03	DN500 - DN450 FL-FL REDUCER	DI PN35	21	DN100 CAMBLOCK COUPLING (FLANGED)	SS	39	DN250 DI CL FL-FL PIPE (2150mm LONG)	DI PN35
04	DN450 FL-FL VALVE	DI PN35	22	DN500 x DN150 FL-FL TEE	DI PN35	40	DN250 x DN250 FL-FL TEE (VERTICAL)	DI PN35
05	DN450 THRUST DISMANTLING JOINT	DI PN35	23	DN150 FL-FL VALVE	DI PN35	41	BLANK FLANGE W/ DN50 BSP TAPPING	DI PN35
06	DN450 FL-FL PIPE 600mm LONG	DI PN35	24	DN150 FL-SP CONNECTOR	DI PN35	42	DN315 PE FULL FACE FLANGE W/ SS BACKING RING	PE100 SDR9
07	DN450 x DN450 FL-FL TEE (VERTICAL)	DI PN35	25	DN150 GUBAULT	DI SS	43	DN280 PE FULL FACE FLANGE W/ SS BACKING RING (356mm PCD)	PE100 SDR9
08	BLANK FLANGE W/ DN50 BSP TAPPING	DI PN35	26	DN150 PIPE C.T.S	DI PN35	44	DN250 1550mm LONG FL-FL PIPE W/ THRUST FLANGE CENTRAL	DI PN35
09	DN250 FL-FL PIPE 600mm LONG	DI PN35	27	DN150 VIADUX VS-4 SMART VALVE	SS	45	DN150 DUCKFOOT BEND	DI PN35
10	BSP THREADED PIPE (LENGTH TO SUIT)	SS	28	DN100 FL-FL VALVE	DI PN35			
11	BALL VALVE BSP THREADED	SS	29	DN100 FL-FL PIPE	DI PN35			
12	DN450 FL-FL SCOUR TEE AND THRUST BLOCK	DI PN35	30	DN100 90 DEGREE BEND w/ THRUST BLOCK	DI PN35			
13	DN450 1500mm LONG FL-FL PIPE W/ THRUST FLANGE CENTRAL	DI PN35	31	DN100 FL-SP CONNECTOR	DI PN35			
14	DN150 FL-FL VALVE	DI PN35	32	DN100 GIBAULT	DI SS			
15	DN150 FL- SP CONNECTOR	DI PN35	33	DN100 PIPE C.T.S	DI PN35			
16	DN150 GIBAULT JOINT	DI/SS	34	DN100 DUCKFOOT BEND	DI PN35			
17	DN150 FL-FL PIPE	DI	35	DN100 VIADUX VS-4 SMART VALVE	SS			
18	DN150 FL-FL 90 DEGREE BEND	DI PN35	36	DN250 x DN100 SCOUR TEE	DI PN35			

SCALE 1:25 (A1 UNREDUCED)

Unitywater Application No. SPS-WTG101-C-DR-8311

DO NOT SCALE THIS DRAWING
IF IN DOUBT - ASK!

REVISIONS

No	Description	Date	By
A	30% LW SUBMISSION	28.11.2025	RP
B	HDD UPDATE	12.03.2026	AL
C	50% DESIGN SUBMISSION	05.05.2026	AL
D	LW SUBMISSION	27.06.2026	AL
E	WWW SUBMISSION SET	28.07.2026	AL



Client



Project

RIVERMONT
SP55
SEWER RISING MAIN &
GRAVITY SEWER



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Approved Director - RPTO 17544
Digitally signed by
Mark Shaw RPEQ
17544
Date: 2026.07.29
15:20:58+1000

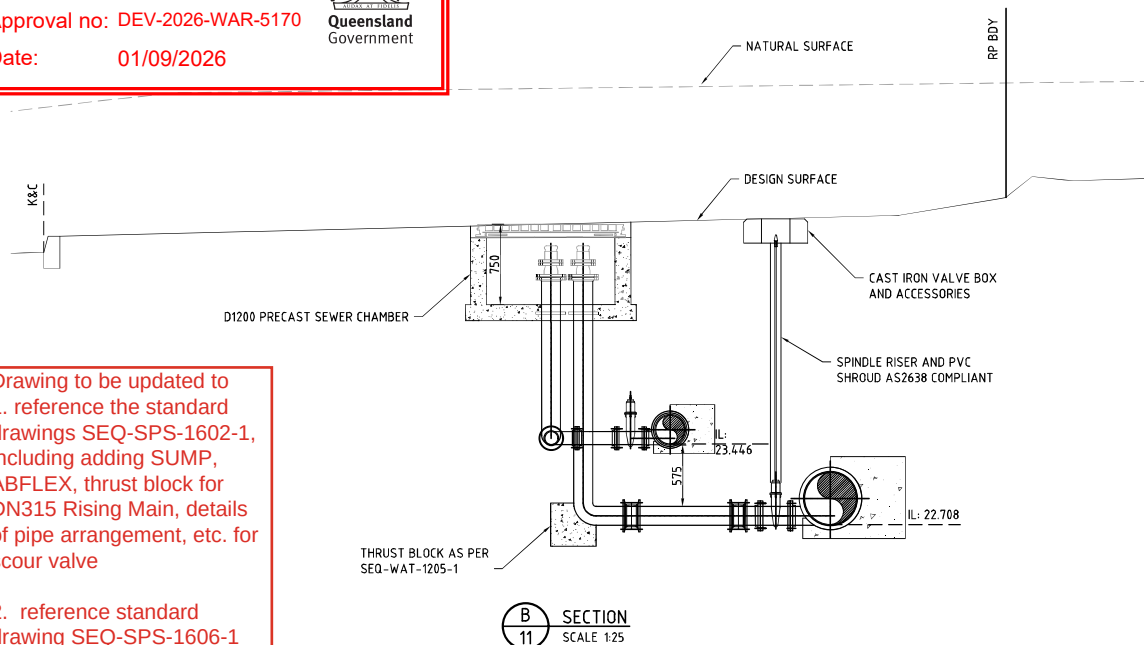
Drawing Title:
SEWER RISING MAIN
GAS RELEASE VALVE DETAILS

Drawn	Designed	Checked	Date
RP	AL	MAS	SEP' 25
Scale	Sheet	Revision	
AS SHOWN	14 of 11		

Approval no: DEV-2026-WAR-5170
Date: 01/09/2026



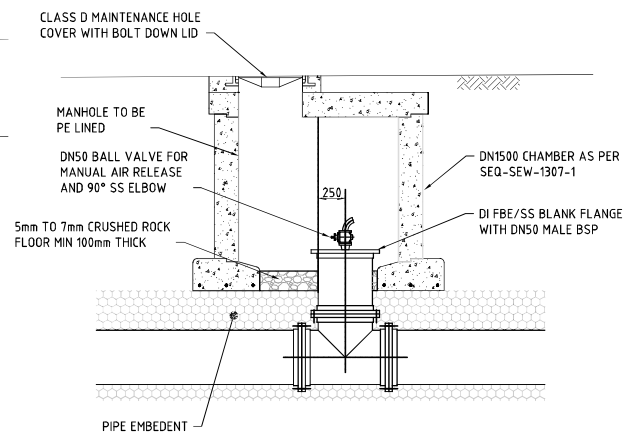
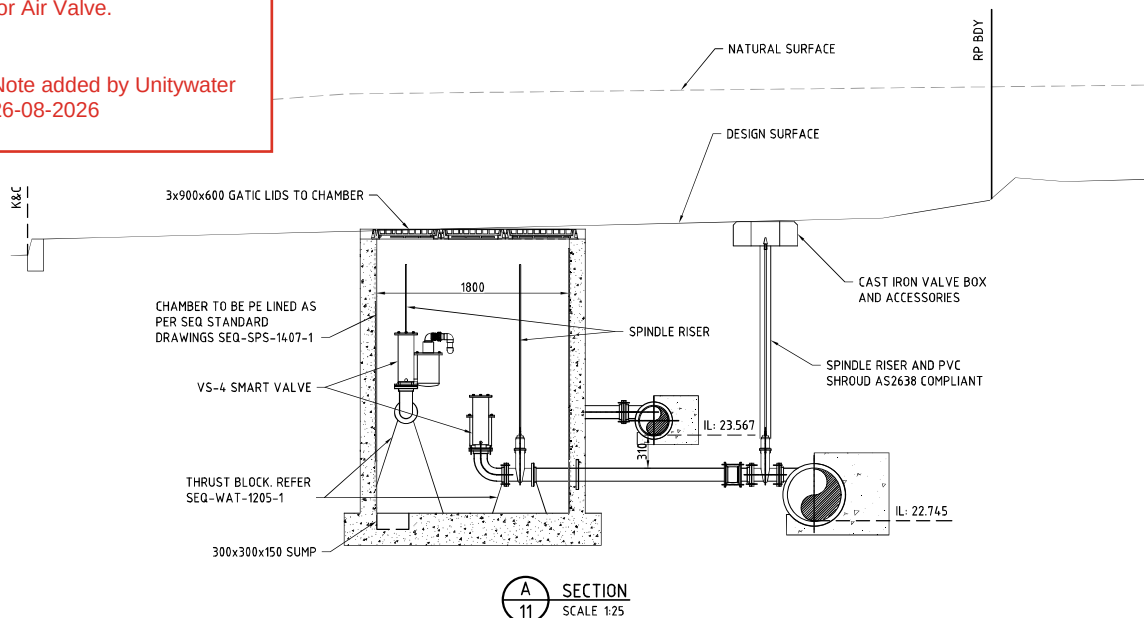
**Queensland
Government**



Drawing to be updated to
1. reference the standard
drawings SEQ-SPS-1602-1,
including adding SUMP,
ABFLEX, thrust block for
DN315 Rising Main, details
of pipe arrangement, etc. for
scour valve

2. reference standard
drawing SEQ-SPS-1606-1
for Air Valve.

Note added by Unitywater
26-08-2026



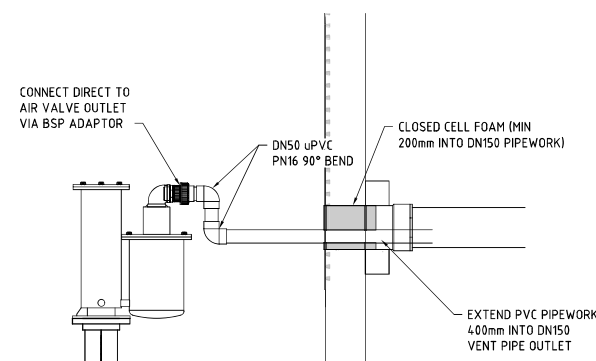
TYPICAL BYPASS TEE CHAMBER SECTION
SCALE 1:25

AMENDED IN RED

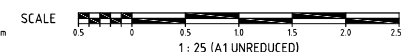
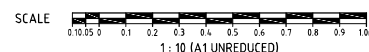
By: Mahima Reshamwala
Date: 01 September 2026



**Queensland
Government**



AIR VALVE VENT PIPE CONNECTION
SCALE 1:10

[illegible]

Clear



Project

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SPS5
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GRAVITY SEWER



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Approved Director: RPEQ 12544

Digitally signed by
Mark Shaw RPEQ
17544
Reason: 0000-03-00

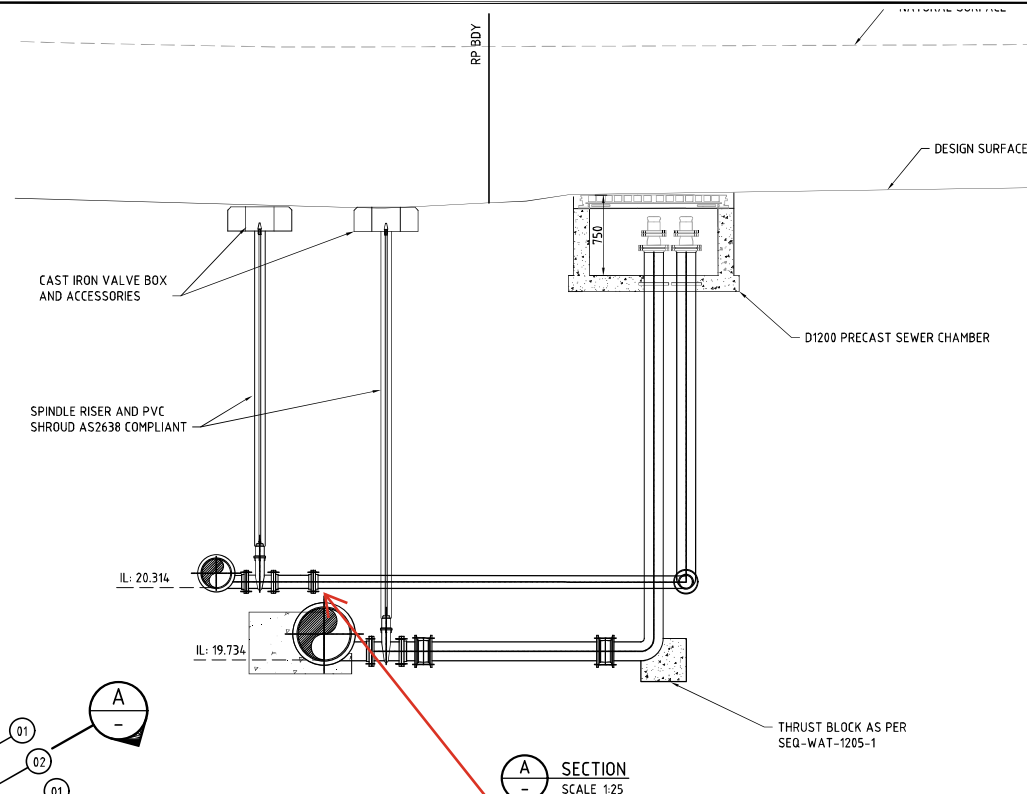
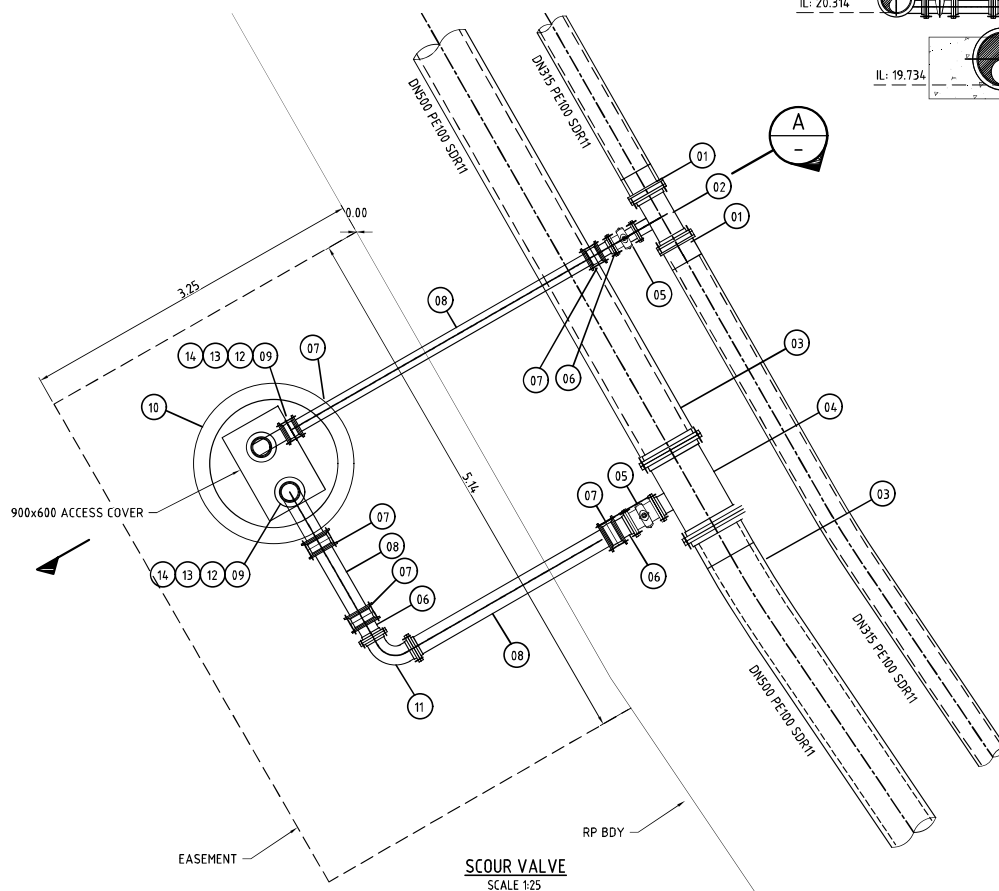
Drawing Title: 17-49-23-10'00"
SEWER RISING MAIN
SCOUR VALVE DETAILS
SHEET 1

Drawn RP	Designed AL	Checked MAS	Date SEP '25
Scale AS SHOWN			Sheet 15 of 1
A1	Drawing No 24-287- 12		Revision D

Approval no: DEV-2026-WAR-5170
Date: 01/09/2026



ITEM	FITTING	MATERIAL
01	DN315 FULL FACE STUB FLANGE W/ SS BACKING RING	PE100 SDR9
02	DN315 FL-FL SCOUR TEE AND THRUST BLOCK	DI PN35
03	DN500 FULL FACE STUB FLANGE W/ SS BACKING RING	DI PN35
04	DN500 FL-FL SCOUR TEE AND THRUST BLOCK	DI PN35
05	DN150 FL-FL VALVE	DI PN35
06	DN150 FL- SP CONNECTOR	DI PN35
07	DN150 GIBAULT JOINT	DI/SS
08	DN150 FL-FL PIPE	DI PN35
09	SOUCONCOPSONSIDOG	
10	DN1200 MANHOLE	CONC
11	DN150 90 DEGREE BEND w/ THRUST BLOCK	DI PN35
12	DN150 90 DEGREE BEND	DI PN35
13	DN150 - DN100 FL-FL REDUCER	DI PN35
14	DN100 CAMBLOCK COUPLING (FLANGED)	SS



Drawing to be updated to

1. indicate the clearance between the scour pipe and DN500 Rising main.
2. reference the standard drawing SEQ-SPS-1602-1, including adding SUMP, ABFLEX, thrust block for DN315 Rising Main, details of pipe arrangement, etc.

Note added by Unitywater
26-08-2026

By: Mahima Reshamwala
Date: 01 September 2026



Approved Director - RPEQ 17544

Digitally signed by
Mark Shaw RPEQ
17544
Date: 2026.07.28

Drawing Title

SEWER RISING MAIN
SCOUR VALVE DETAILS
SHEET 2

SHEET 2

Drawn RP	Designed AL	Checked MAS	Date SEP '25
Scale AS SHOWN			Sheet 16 of 1

SCALE

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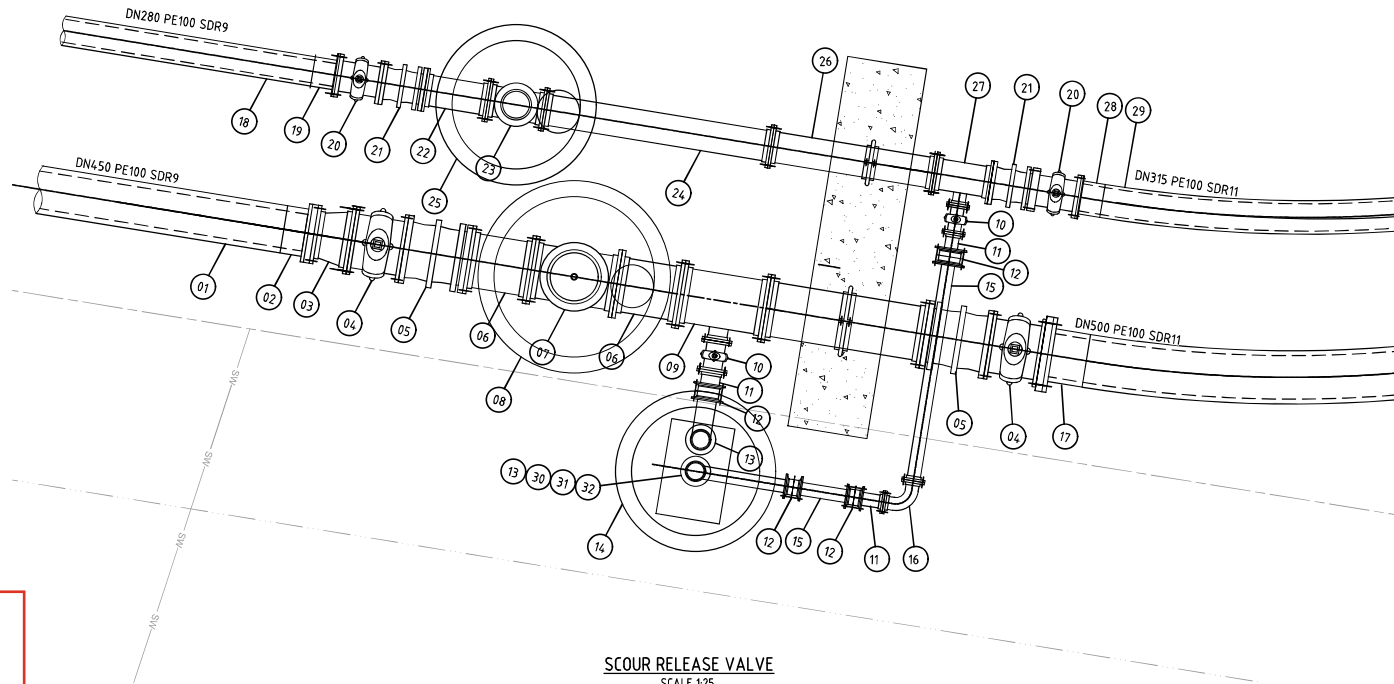
1: 25 (A1 UNREDUCED)

Utilitywater Application No.	Utilitywater Drawing No.		Drawing No	Revision
-	SPS-WTG101-C-DR-8313	A1	24-287- 13	D

Approval no: DEV-2026-WAR-5170
Date: 01/09/2026



By: Mahima Reshamwala
Date: 01 September 2026



SCOUR RELEASE VALVE
SCALE 1:25

ITEM	FITTING	MATERIAL
01	DN450 PE100 PIPE	PE100 SDR9
02	DN450 FULL FACE STUB FLANGE w/ SS BACKING RING	PE100 SDR9
03	DN450 – DN375 FL-FL REDUCER	DI
04	DN450 FL-FL VALVE	DI
05	DN450 DISMANTLING JOINT (THRUST TYPE)	DI/SS
06	DN450 FL-FL PIPE (600mm LONG)	DI
07	DN450 x DN450 UPTURNED FL-FL TEE	DI
08	DN1500 PRECAST CONCRETE MANHOLE	CONC
09	DN450 x DN150 FL-FL SCOUR TEE	DI
10	DN150 FL-FL VALVE	DI
11	DN150 FL-SP CONNECTOR	DI
12	DN150 GIBAULT	DI/SS
13	DN150 90 DEGREE BEND	DI
14	DN1200 CONCRETE MANHOLE	CONC
15	DN150 SP-SP PIPE C.T.S.	DI
16	DN150 90 DEGREE BEND	DI
17	DN500 FULL FACE STUB FLANGE W/ SS BACKING RING	PE100 SDR11

18	DN280 PE100 PIPE	PE100 SDR9
19	DN280 FULL FACE STUB FLANGE w/ SS BACKING RING (PCD 356mm)	PE100 SDR9
20	DN250 FL-FI VALVE	DI
21	DN250 DISMANTLING JOINT (THRUST TYPE)	DI/SS
22	DN250 FL-FI PIPE (600mm LONG)	DI
23	DN250 x DN250 UPTURNED FL-FI TEE	DI
24	DN250 FL-FI PIPE (2150mm LONG)	DI
25	DN1200 CONCRETE MANHOLE	CONC
26	DN250 1500mm LONG FL-FI PIPE w/ THRUST FLANGE CENTRAL	DI
27	DN250 x DN150 FL-FI SCOUR TEE	DI
28	DN315 FULL FACE STUB FLANGE w/ SS BACKING RING	PE100 SDR11
29	DN315 PE100 PIPE	PE100 SDR11
30	DN150 FL-FI PIPE	DI
31	DN150 - DN100 FL-FI REDUCER	DI
32	DN100 CAMLOCK COUPLING (FLANGED)	SS

SCALE  1: 25 (A1 UNREDUCED)

Utilitywater Application No.	Utilitywater Drawing No.	A1	Drawing No	Revision
-	SPS-WTG101-C-DR-8313a		24-287- 13a	B

DO NOT SCALE THIS DRAWING
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REVISIONS

[illegible]

Client



Project

RIVERMONT
SPS5
SEWER RISING MAIN &
GRAVITY SEWER



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Approved Director - RPEQ 17544

Digitally signed by
Mark Shaw RPEQ
17544
Date: 2026.07.28
17:49:24+10'00'

Drawing Title
SEWER RISING MAIN
SCOUR VALVE DETAILS
SHEET 2

Drawn RP	Designed AL	Checked MAS	Date SEP' 25
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Scale	Sheet
AS SHOWN	17 of 11

Date: 01/09/2026



Date: 01 September 2026

[illegible]

Clear



Protect

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Approved Director - RPEQ 17544

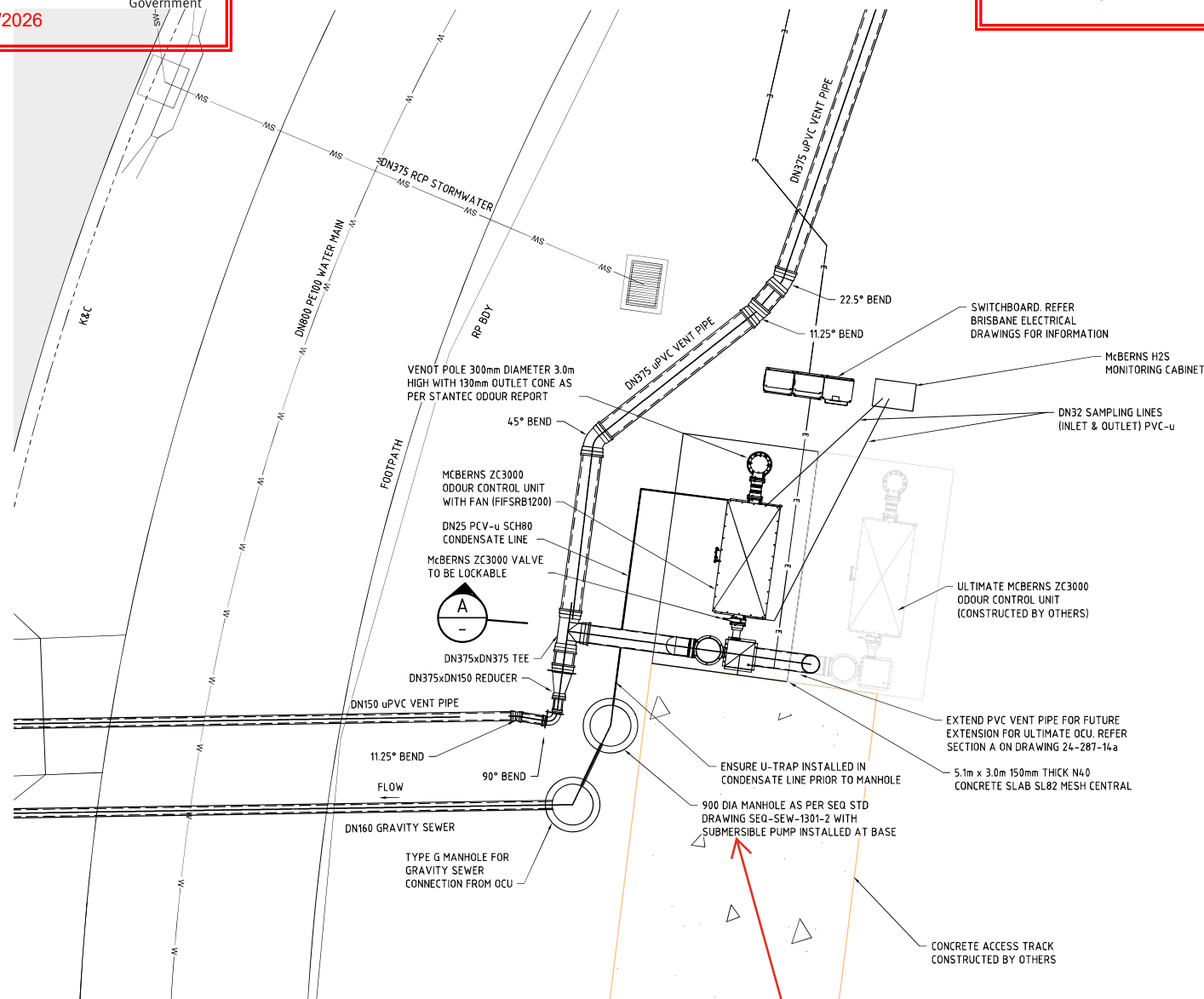
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Mark Shaw RPEQ
17544
Date: 2026.07.28
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Drawing Title

17-49-25-10'00'

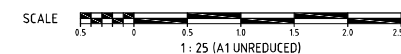
SEWER RISING MAIN
ODOUR CONTROL UNIT
DETAILS SHEET 1

Drawn RP	Designed AL	Checked MAS	Date SEP' 25
Scale AS SHOWN			Sheet 18 of 1



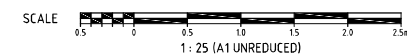
LAYOUT PLAN
SCALE 1:500

Drawing to be updated to provide details of the manhole and pump.



Utilitywater Application No.	Utilitywater Drawing No.
-	SPS-WTG101-C-DR-8314

Utilitywater Application No.	Utilitywater Drawing No.	As Shown	Revision
-	SPS-WTG101-C-DR-8314	A1	24-287- 14 E

[illegible]

Client



Project

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SPS5
SEWER RISING MAIN &
GRAVITY SEWER



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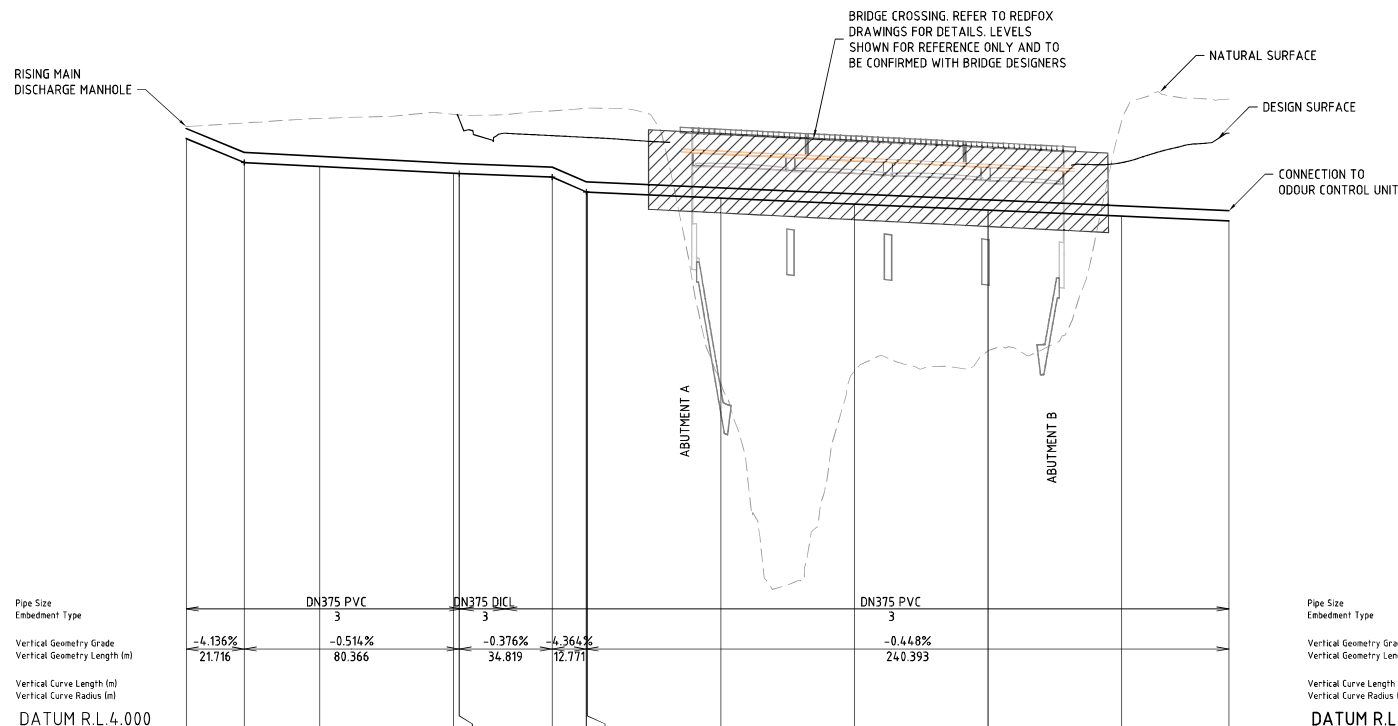
Approved Director - RPEQ 17544

M. Shaw Digitally signed by Mark Shaw RPEQ 17544
Date: 2026.07.28 17:49:25 -1000

Drawing Title
SEWER RISING MAIN
ODOUR CONTROL UNIT
DETAILS SHEET 2

Drawn RP	Designed AL	Checked MAS	Date SEP' 25
Scale AS SHOWN			Sheet 19 of 11
A1	Drawing No 24-287- 14a		Revision B

Approval no: DEV-2026-WAR-5170
Date: 01/09/2026



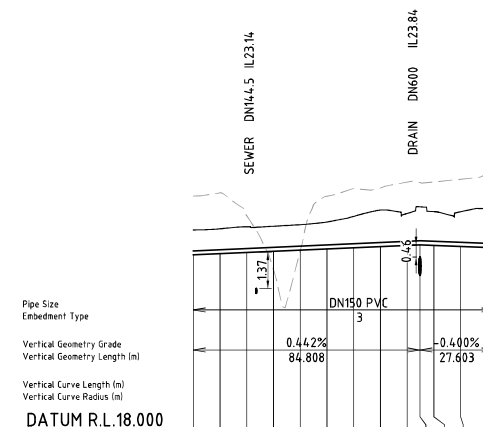
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	2.049	26.981	2.192	24.789	102.083
	1.551	27.136	2.478	24.658	136.902
	2.044	27.239	3.139	24.100	149.673
	2.044	27.240	3.142	24.099	150.000
		16.944	-6.931	23.875	200.000
		17.404	-6.246	23.651	250.000
		18.144	-5.282	23.426	300.000
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	26.300	26.300			

Horiz Curve Data

	R=0.5	R=0.5
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LONGITUDINAL SECTION - DISCHARGE MANHOLE VENT PIPE

SCALE - 1:1000 (H)
1:100 (V)

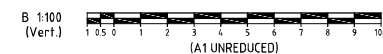
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Horiz Curve Data

R.47.4	R.31.9
19.556	12.761

LONGITUDINAL SECTION - GRV VENT PIPE

SCALE - 1:1000 (H)
1:100 (V)



Utilitywater Application No.	Utilitywater Drawing No.
-	SPS-WTG101-C-DR-8315

DO NOT SCALE THIS DRAWING
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REVISIONS

[illegible]

Client	
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GRAVITY SEWER



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Approved Director - RPEQ 17544

Digitally signed by
Mark Shaw RPEQ
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Date: 2026.07.28
17:13:33 +0800

Drawing Title
SEWER RISING MAIN
ODOUR CONTROL UNIT
DETAILS SHEET 3

Drawn RP	Designed AL	Checked MAS	Date SEP '25
Scale AS SHOWN			Sheet 20 of 1
A1	Drawing No 24-287- 15		Revision D